

12-1-1967

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Recommended Citation

William B. Aycock, *Introduction to Water Use Law in North Carolina*, 46 N.C. L. REV. 1 (1967).Available at: <http://scholarship.law.unc.edu/nclr/vol46/iss1/5>

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INTRODUCTION TO WATER USE LAW IN NORTH CAROLINA

WILLIAM B. AYCOCK*

[I]t is not amiss to say that a State which deals with its resources on the principle attributed to Louis XIV—*'après moi le deluge'*—is headed for economic ruin. Seawell, J. (Hampton v. North Carolina Pulp Co., 223 N.C. 535, 550 (1943)).

When a drop of rain (or snow, or sleet, or hail) falls on the surface of North Carolina, it begins a journey to the Atlantic Ocean, or to the Gulf of Mexico, if it does not return to the atmosphere by evaporation or transpiration or become imprisoned underground. The journey may involve a variety of routes and some delays. The raindrop may travel in a watercourse, or on the surface, or it may

* Kenan Professor of Law, University of North Carolina. My Research Assistant, W. P. Aycock II, is acknowledged for the many contributions he made in the preparation of this article.

The literature on the subject is extensive. Some of the important sources are: H. Ellis, *Some Legal Aspects of Water Use in North Carolina*, THE LAW OF WATER ALLOCATION IN THE EASTERN UNITED STATES, 189-370 (1958); NORTH CAROLINA BD. OF WATER COMM'RS REP. (1956); NORTH CAROLINA BD. OF WATER COMM'RS, SECOND REP. (1958); NORTH CAROLINA DEP'T OF WATER RESOURCES, FIRST BIENNIAL REP. (1960); NORTH CAROLINA DEP'T OF WATER RESOURCES, SECOND BIENNIAL REP. (1962); NORTH CAROLINA DEP'T OF WATER RESOURCES, NORTH CAROLINA WATER RESOURCE PLANNING (1964); 1-2 NORTH CAROLINA DEP'T OF WATER RESOURCES, WISE MANAGEMENT OF NORTH CAROLINA WATER RESOURCES THROUGH LAW (1966) [hereinafter cited as 1-2 WISE MANAGEMENT]; NORTH CAROLINA DEP'T OF WATER RESOURCES, WISE MANAGEMENT OF NORTH CAROLINA WATER RESOURCES THROUGH LAW—FINAL REP. (1967) [hereinafter cited as WISE MANAGEMENT—FINAL REPORT]; R. DEWIEST, A. SAYRE, & C. JACOB, EVALUATION OF POTENTIAL IMPACT OF PHOSPHATE MINING ON GROUND-WATER RESOURCES OF EASTERN NORTH CAROLINA (1957) [hereinafter cited as DEWIEST] (for an extensive bibliography see pages 164-67 of this report); P. GREEN, D. HAYMAN, & E. MACHEN, STREAM POLLUTION IN NORTH CAROLINA (1951); Ligon, *Legal Basis for Water Pollution Control*, 28 POPULAR GOV'T 6 (April 1962); Heath, *Some Legal Aspects of Federal and State Regulation of Water Pollution*, 30 POPULAR GOV'T 9 (June 1964); Heath, *The Legal Implications of Water-Quality Standards*, 33 POPULAR GOV'T 9 (Oct. 1966); INSTITUTE OF GOV'T, UNC WATER RESOURCE PAPERS (1963-1966); Marquis, Freeman & Heath, *The Movement for New Water Rights Law in the Tennessee Valley States*, 23 TENN. L. REV. 806 (1955); Weil, *Theories of Water Law*, 27 HARV. L. REV. 530 (1914); Weil, *Waters: The American Law and French Authority*, 33 HARV. L. REV. 133 (1919); H. FARNHAM, THE LAW OF WATER AND WATER RIGHTS (1904); R. CLARK, WATER AND WATER RIGHTS (1967); R. POWELL, THE LAW OF REAL PROPERTY (1962); VI-A AMERICAN LAW OF PROPERTY (A. J. Casner ed. 1954).

go underground and move along through cracks and crevices. Scientifically, the movement of the raindrop—irrespective of the itinerary it follows—is involved in a single process—the hydrologic cycle.¹ The common law takes a different view. A raindrop is classified according to where it happens to be at a given point in its travels. These classifications² are: (1) watercourses, (2) diffused surface water, (3) subterranean or underground water. In England different legal rules developed for each of these classifications. These rules provided the basis for the common law of water use in North Carolina. The courts have substantially altered the English law in each classification. Thus, today, the common law of North Carolina is more a departure from, rather than an adherence to, the common law of England.

Water laws designed to deal with the relationships of private persons in the use and disposition of water while it is on or adjacent to their land are largely a product of the judiciary. These laws serve an important function, but they were not designed to protect the larger public interest in water resources in these times. Consequently, a new body of law, largely statutory, is being developed with the objective of protecting the public interest. This new development in North Carolina is in response to recent warnings that all is not well on the waterfront.

The average annual precipitation over North Carolina is approximately forty-eight inches.³ Sometimes too much falls at a given

¹ The hydrologic cycle is defined as follows:

In the natural sequence of events, water evaporated from the ocean by the energy of the sun is carried inland as vapor and some falls on the land as rain, snow, sleet, or hail. Some of the precipitation is returned to the atmosphere by evaporation and transpiration, and the remainder percolates into the soil or flows overland and down the channels of surface streams. Much of the water that enters the soil is evaporated or transpired, but the remainder moves downward to the water table and enters the zone of saturation. Some of this water goes into permanent ground-water storage, but much of it moves laterally toward streams, maintaining the fair-weather flow. The water that moves beneath or upon the land surface eventually reaches the sea where it is again evaporated. This phenomenon is known as the hydrologic cycle.

² WISE MANAGEMENT app. F at F1.

³ On legal classification of water *see generally* 1 R. CLARK, WATERS AND WATER RIGHTS § 50, at 283 (1967).

⁴ 2 WISE MANAGEMENT app. F at F1, F2. It is estimated that in the coastal plain and piedmont provinces, which comprise about 95 percent of the state, about two-thirds of the precipitation is returned to the atmosphere by evaporation and by transpiration of plants, about one-sixth is direct runoff into the streams, and the remainder sinks into the pores and other openings in the soil and underlying rocks and becomes subterranean water. DEWIEST 35.

place, and at other times there is too little. The critical fact is that overall the supply is relatively static while the need for water is increasing at a rapid rate.⁴

The General Assembly has undertaken to deal with this changing situation by enacting two types of statutes. The first category may be called water development laws. These laws usually involve groups and communities. Typically, these laws provide for soil and water conservation districts, flood plain management, drainage districts, authority for cities and counties to provide water and sewage services, and authority for participation in federal water supply projects.⁵ Second, there are statutes designed to control water use. In 1967 the General Assembly declared that the water resources of the state "belong to the people"⁶ and pursuant to this policy declaration enacted several laws, including a Water Use Act.⁷

This article is concerned with water use laws as distinguished from water development laws. It will deal both with the laws defining the rights of landowners in water resources and with the laws on water use designed to protect the public interest.

PART I—PRIVATE RIGHTS

Watercourses

1. Riparian Rights in General.

The Water Use Act of 1967 expressly provides that the Act does not change or modify existing common or statutory law "with respect to the relative rights of riparian owners concerning the use

⁴ *E.g.*, Estimates of water for 1975 indicate that 1,754 million gallons per day will be withdrawn for domestic, agricultural, and industrial use of which 743 million gallons will be used consumptively. By comparison, in 1956 the state was using about 914 million gallons per day of which 430 million gallons were used consumptively. NORTH CAROLINA BD. OF WATER COMM'RS, SECOND REPORT 15-16 (1958).

⁵ N.C. GEN. STAT. § 139 (1964), *as amended*, ch. 987 (1967) N.C. Sess. L. (Soil and Water Conservation Districts and Flood Plain Management); N.C. GEN. STAT. § 156 (1964) (Drainage Districts); N.C. GEN. STAT. §§ 160-239 to -257 (1964) (authorization for cities to provide water and sewerage services); N.C. GEN. STAT. §§ 153-284 to -294 (1964) (authorization for counties to provide water and sewerage services); N.C. GEN. STAT. § 143 art. 21 (1964) and ch. 308 (1959) N.C. Sess. L. (providing authority for participation in federal water supply projects); Heath, *Small Watershed Enabling Laws*, 26 POPULAR GOV'T 2 (Nov. 1959); Heath, *Small Watershed Programs*, 26 POPULAR GOV'T (March-April 1960); Wicker, *Water Resources*, 30 POPULAR GOV'T 69 (Sept.-Oct. 1963); Heath & Wicker, *Water Resources*, 32 POPULAR GOV'T 71 (Sept. 1965).

⁶ The North Carolina Water and Air Resources Act, Ch. 892 [1967] N.C. Sess. L., N.C. GEN. STAT. § 143-211 (1967).

⁷ Water Use Act of 1967, Ch. 933 [1967] N.C. Sess. L.

of surface waters."⁸ Since riparian⁹ rights do not apply to diffused surface water and only in rare instances to underground water,¹⁰ the term "surface" water in this particular provision of the Act must mean surface water in watercourses. We may, then, proceed to inquire; what is the existing common and statutory law in North Carolina with respect to the relative rights of riparian owners in watercourses? In general, the law of riparian rights applies only to waters in a natural watercourse as distinguished from an artificial one.

A watercourse consists of bed, banks and water. . . . A *natural* watercourse has such characteristics while in a state of nature and without artificial construction. Natural watercourses are such as rivers, creeks and branches. A canal can never come under such a designation, unless it is a mere enlargement of a natural watercourse.¹¹

A riparian proprietor is an owner of land in actual contact with a natural watercourse.¹² Close proximity is not sufficient. A municipality may be a riparian owner but inhabitants of the city who purchase water from the municipality do not have riparian rights.¹³ One not a riparian owner, however, may acquire riparian rights by prescription.¹⁴

The necessity for alleging and proving that a person is vested with riparian rights was illustrated vividly in a recent case. The plaintiff, a lessee, irrigated his crop of vegetables from a stream. Because the stream was polluted, the Department of Agriculture prohibited him from marketing his crop. The plaintiff sued the polluter and a jury awarded him a verdict of forty-five hundred dol-

⁸ *Id.*, § 12.

⁹ 'Riparian' is from the Latin word 'riparius,' of or belonging to the bank of a river; in turn derived from 'ripa,' a bank, and is defined as 'pertaining to or situated on the bank of a river;' the word has reference to the bank, and not to the bed of the stream. The words 'riparian property' have, however, been frequently applied also to ownership on the shores of the sea or of a lake, a condition more accurately expressed by the phrase 'littoral proprietor.'

56 AM. JUR. *Waters* § 273 (1947).

¹⁰ See "Underground Water" p. 22 *infra*.

¹¹ *Porter v. Armstrong*, 129 N.C. 101, 106, 39 S.E. 799, 801 (1901); *Darr v. Carolina Aluminum Co.*, 215 N.C. 768, 3 S.E.2d 434 (1939) (ditch is an artificial stream).

¹² *Miller v. Coppage*, 261 N.C. 430, 135 S.E.2d 1 (1964); *Young v. City of Asheville*, 241 N.C. 618, 86 S.E.2d 408 (1955).

¹³ *Pernell v. City of Henderson*, 220 N.C. 79, 16 S.E.2d 449 (1941).

¹⁴ See "Prescription" p. 15 *infra*.

lars. On appeal¹⁵ the verdict was set aside. The plaintiff, according to the court, had no standing to sue the polluter because he failed to allege and prove that his lessor was a riparian owner or that either he or his lessor was entitled to riparian rights by prescription.

The rights of a riparian owner are inseparably annexed to the soil and pass with it as a part of it and not as an easement or appurtenance.¹⁶ The several proprietors along the course of a stream have no property in the flowing water itself but each proprietor has certain rights with respect to the water.¹⁷ These rights are not dependent upon the proprietor's actual use or appropriation of the flowing water.¹⁸

The rights of riparian owners *inter se* are not altered by the circumstance of a watercourse being deemed navigable or non-navigable, but as will later appear,¹⁹ a finding of navigability "injects an ingredient of public right, resident partly in the State and partly in the United States, which qualifies and limits the otherwise existent rights and privileges of the bordering private owners. . . ."²⁰

The riparian doctrine constitutes one of the two major legal systems governing watercourses in the United States.²¹ Its genesis is in feudal land law. In early Anglo-American law riparian rights were expressed in terms of the "natural flow" rule. This rule has been succinctly described as follows:

Designed to protect . . . milling, navigation and recreation, the doctrine accorded to the owner of lands servient to the stream the right to have the flow continue by or through his lands undiminished in quantity and unpolluted in quality except for such diversions as other riparians might make to provide for the natural wants of man and maintain life upon their riparian lands. These natural uses were severely limited in quantity to such water as might be necessary for drinking, bathing, watering farm animals, and the irrigation of garden crops designed for consumption upon

¹⁵ *Young v. City of Asheville*, 241 N.C. 618, 86 S.E.2d 408 (1955). The Commissioner of Agriculture obtained an injunction against the sale or disposition of the crop which had been irrigated from Beaverdam Creek which was polluted by defendant's sewage.

¹⁶ *Smith v. Town of Morganton*, 187 N.C. 801, 123 S.E. 88 (1924).

¹⁷ *Durham v. Cotton Mills*, 141 N.C. 615, 54 S.E. 453 (1906).

¹⁸ *Smith v. Town of Morganton*, 187 N.C. 801, 123 S.E. 88 (1924).

¹⁹ See p. 17 *infra*.

²⁰ 5 R. POWELL, REAL PROPERTY § 710, at 351-52 (1962).

²¹ The other major legal water system is the prior appropriation doctrine which prevails in the more arid states. The law in several states is a hybrid of the riparian doctrine and the prior appropriation doctrine. See generally 1 R. CLARK, WATERS AND WATER RIGHTS § 51, at 287 (1967).

the land. Industrial uses were permitted only to the extent that the water could be returned to the stream without substantial diminution in quantity or impairment in quality at the point it left the user's property.²²

The rule of "natural flow" assured that most of the water in a stream would proceed, unused and unmolested, to the sea where its fate was certain pollution by salt water. Although this rule may have been adequate in humid areas and during a time when the need for water was limited, it was unsuited to meet the needs of growing populations and rising industrial use. In recognition of changing circumstances, the North Carolina Supreme Court adopted the American rule or rule of reasonable use. The revised rule was stated by the court as follows:

This doctrine finds support in our decisions which hold that a riparian proprietor is entitled to the natural flow of a stream running through or along his land in its accustomed channel, undiminished in quantity and unimpaired in quality, except as may be occasioned by the reasonable use of the water by other like proprietors.²³

What constitutes reasonable use, according to the court, "is a question of fact having regard to the subject-matter and the use; the occasion and manner of its application; its object and extent and necessity; the nature and size of the stream; the kind of business to which it is subservient; the importance and necessity of the use claimed by one party and the extent of the injury caused by it to the other."²⁴ The court explained that "like proprietors" means that the use of one farmer shall be judged by the use of another farmer and one manufacturer by the customs and use of another manufacturer. The other interpretation would mean that "a stream not

²² Martz, *Water for Mushrooming Populations*, 62 W. VA. L. REV. 1, 8 (1959).

²³ *Smith v. Town of Morganton*, 187 N.C. 801, 802-803, 123 S.E. 88, 89 (1924). The court actually applied the natural flow doctrine in dealing with diversion by a municipality for its inhabitants. Although the plaintiff was not making any use of the river he was awarded damages. Later the court said: "The rule that the upper proprietor has no right to use the water to the prejudice of the proprietor below him, or that he cannot lawfully diminish the quantity is too broad, for it would give the lower proprietor superior advantages over the upper and in many cases give him in effect a monopoly of the stream." *Dunlap v. Carolina Power & Light Co.*, 212 N.C. 814, 819, 195 S.E. 43, 47 (1938).

²⁴ *Dunlap v. Carolina Power & Light Co.*, 212 N.C. 814, 820, 195 S.E. 43, 47 (1938).

therefore used for water power purposes could never be so used, because the person who first undertook to avail himself of the water power capabilities of a stream would find that he was not making use thereof as other like owners."²⁵ Reasonable use is a concept which deals with water in excess of domestic needs on a basis of correlative rights between riparian owners.²⁶ It is utilitarian in approach, and the social utility of a use by an upper owner is taken into consideration by the court in the application of the rule.

Litigation between riparian owners, in general, involves disputes over diversion, detention or acceleration of the flow, backups and pollution. An examination of each of these areas will show how the doctrine of reasonable use is applied in North Carolina.

2. Diversion.

A few cases have been concerned directly with the right of an upper riparian owners to divert water. Two, in particular, illustrate a lenient attitude by the court toward business and industry. In one case a preliminary injunction had been issued by the lower court to prevent the defendant from diverting water to two thousand acres of land suitable only for mining purposes. In setting aside the injunction the court stated:

This new industry of gold washing may from necessity require some modification of the general law, since for mill and mechanical purposes the use of the passing water as a moving power does not destroy, or in any considerable degree, reduce the volume which still flows on for the use of others. *The diversion for gold washing often at remote points, involves its total loss to others.*²⁷

Although the court refused to enjoin the defendant from diverting water to "remote points" for consumptive use, it did not foreclose

²⁵ *Id.* at 818, 195 S.E. at 45-46.

²⁶ It has sometimes been assumed that the 'natural flow' principle is the common law principle, and that the 'reasonable use' idea is simply a modification of that principle. Careful analysis, however, would seem to indicate that such is not the case. Perhaps the 'reasonable use' view was developed after the 'natural flow' doctrine, but it is not merely a variation of it. The two views spring from fundamentally different concepts as to what people ought to do or refrain from doing with flowing water. They seek to achieve different ends. One view emphasizes the *right* to the flow of the stream, and seeks to maintain, as nearly as possible, the status quo of nature. The other emphasizes the *privilege* of use, and seeks to promote the fullest beneficial use of streams by the proprietors thereon. Kinyon, *What Can A Riparian Proprietor Do?*, 21 MINN. L. REV. 512, 526-27 (1937).

²⁷ *Walton v. Mills*, 86 N.C. 280, 285 (1882) (emphasis added).

the possibility of a suit by lower riparian owners, including the plaintiff, for any damages resulting from the diversion.

In another case²⁸ the court upheld a finding by the jury that the diversion of 26,000 gallons a day out of a flow of 293 million gallons was not unlawful or wrongful. The court reiterated that the mere taking does not give a lower riparian owner a right to complain because the water itself is not the subject of ownership. The right of action accrues from the taking of water "in such unreasonable quantity as to materially, substantially injure the lower proprietor in some legitimate use he is making of the water."

Recently, the use of water for irrigation purposes has substantially increased in North Carolina. The methods used result in a more consumptive use than most industrial and municipal uses²⁹ in that the water is rarely returned to the source from which it is taken. Under existing laws the use of water for irrigation could become a fertile field for litigation.

The diversion of water by municipalities for use by inhabitants is looked upon more strictly by the court than diversion by industrial users. In 1924³⁰ permanent damages were awarded a lower riparian owner against the town of Morganton notwithstanding the fact that the plaintiff was not making any use of the water from the stream. This decision was more in accord with the doctrine of natural flow than the doctrine of reasonable use. In 1941³¹ the court held that a municipality, as riparian owner, had no right to supply the needs of its inhabitants from a watercourse.

As to the relief available to riparian owners in these water disputes, the court has been reluctant to grant injunctions against the municipalities. An award for permanent damages is the more usual relief for the riparian owners. In effect, this type of relief provides a municipality with an "easement" to continue diverting.³² It is

²⁸ *Harris v. Norfolk & Western Ry.*, 153 N.C. 542, 69 S.E. 623 (1910).

²⁹ NORTH CAROLINA BD. OF WATER RESOURCES, SECOND REPORT 21 (1958). In 1836 the court referred to irrigation as one of the natural uses along with those of one's family and cattle. This reference probably meant irrigation of gardens. For recent developments see Heath, *How Population and Economic Trends May Affect Water Resources in North Carolina*, 31 POPULAR GOV'T 9-10 (Nov. 1964). N.C. GEN. STAT. § 113-8.1 enacted in 1951 appeared to require a permit for persons desiring to irrigate from streams or lakes. Because the statute was ambiguous and difficult to administer, it was repealed by ch. 315 [1961] N.C. Sess. L.

³⁰ *Smith v. Town of Morganton*, 187 N.C. 801, 123 S.E. 88 (1924).

³¹ *Pernell v. City of Henderson*, 220 N.C. 79, 16 S.E.2d 449 (1941).

³² *Cooke v. Town of Mebane*, 191 N.C. 1, 131 S.E. 407 (1926). For a

doubtful, however, if the "easement" extends beyond the amount being diverted at the time of the award.

In a condemnation case, the court has taken the view that damages caused by a public service corporation to a lower riparian owner are to be measured by the loss to the riparian owner and not by the gain of the diverter.³³ Since municipalities, as well as certain public service corporations,³⁴ have statutory powers of condemnation, presumably, when the question arises, a diverting municipality will be accorded equal treatment. Often a lower riparian owner will be able to show only minimal damages, and thus the cost to the municipality will be small. Finally, in some situations the law of prescription may provide legal sanction for diversion by municipalities.

3. Alteration of the stream's manner of flow—detention, backups, and acceleration.

The court early declared³⁵ that owners of land through which a non-navigable stream runs may use the watercourse for purposes of profit. When a riparian owner uses water for manufacturing³⁶ and other industrial purposes, he usually erects a dam. Disputes between riparian owners over the erection and operation of dams have frequently been the subject of litigation.³⁷ Generally, one who

similar case involving a water company which supplied a municipality, see *Geer v. Durham Water Co.*, 127 N.C. 349, 37 S.E. 474 (1900).

³³ *Nantahala Power & Light Co. v. Moss*, 220 N.C. 200, 17 S.E.2d 10 (1941).

³⁴ N.C. GEN. STAT. § 40 (1966). "All municipalities operating water systems, and all water companies operating under charter from the State or license may acquire by condemnation such lands and rights in lands and water as are necessary for the successful operation and protection of their plants. Condemnation proceedings under this section shall be the same as prescribed by law under Chapter 40 of the General Statutes of North Carolina." N.C. GEN. STAT. § 130-162 (1964). Rarely do municipalities find it necessary to purchase water rights from riparian owners. Heath, *Water Use Law in Action*, 28 POPULAR GOV'T 13 (March-April 1962).

³⁵ *Pugh v. Wheeler*, 19 N.C. 50 (1836). Ch. 1086 [1967] N.C. Sess. L., which provides for certification and inspection of certain dams, appears to be the first legislation by the state of North Carolina specifically dealing with the construction of dams on navigable waters.

³⁶ *Dunlap v. Carolina Power & Light Co.*, 212 N.C. 814, 195 S.E. 43 (1938).

³⁷ *Sink v. City of Lexington*, 214 N.C. 548, 200 S.E. 4 (1938); *Carruthers v. Tillman*, 2 N.C. 501 (1797). The court is reluctant to grant an injunction in these cases and is inclined to leave the plaintiff to prove his damages. *Tucker & Carter Rope Co. v. Southern Aluminum Co.*, 165 N.C. 572, 81 S.E. 771 (1914). See N.C. GEN. STAT. § 73 (1965) for legislation on the subject of "Mills," much of which dates from the early nineteenth century. N.C. GEN. STAT. § 73-27 (1965) is specifically directed to avoiding a multiplicity of suits when the annual damage is less than twenty dollars.

lawfully erects a dam is entitled to detain the water long enough to accumulate a sufficient head for manufacturing purposes. Disputes occur when the dam causes flooding or ponding on the lands of an upper riparian owner, or when a lower riparian owner is damaged by an unusual retardation or acceleration of the flow by an upper riparian owner.

A lower mill owner has been held liable for damage to the land and machinery of an upper mill owner due to an overflow caused by water backing up, even though the overflow did not occur except when the stream was swollen.³⁸ The court also has held that an upper riparian owner is entitled to go to the jury on an alleged injury to his land caused by a retardation of drainage. The land could not drain because the defendant's dam backed water close to the bottom land of the plaintiff.³⁹ An owner of a dam may be held liable for flooding the land of an upper riparian owner because he negligently fails to release water frequently enough to prevent sand from filling up the stream bed, thereby creating a flood condition above the dam.⁴⁰

One who detains water must not release it in such a manner as to injure the property of a lower riparian owner. If he does so, the upper mill owner will be held liable.⁴¹ The fact that the defendant in the operation of a hydroelectric dam closed the floodgates at night, causing a substantial decrease in the water in the channel of the Yadkin River, and opened the floodgates in the morning resulting in an accelerated flow until the stream was normal did not constitute an unreasonable use; nevertheless, if the release of the water caused the banks of the plaintiff's property to wash away, the defendant would be liable in damages on the theory of taking or appropriating property of another.⁴²

The owner of a dam is required to exercise ordinary care in anticipating flood conditions from an ordinary freshet and to use reasonable care in preventing undue acceleration or retardation of the flood water.⁴³ In determining the question of reasonable care

³⁸ *Pugh v. Wheeler*, 19 N.C. 50 (1836).

³⁹ *Sink v. City of Lexington*, 214 N.C. 548, 200 S.E. 4 (1938).

⁴⁰ *Teseneer v. Henrietta Mills Co.*, 209 N.C. 615, 184 S.E. 535 (1936).

⁴¹ *Kitchen Lumber Co. v. Tallassee Power Co.*, 206 N.C. 515, 174 S.E. 427 (1934) (destruction of bridge).

⁴² *Dunlap v. Carolina Power & Light Co.*, 212 N.C. 814, 195 S.E. 43 (1938).

⁴³ *Bruton v. Carolina Power & Light Co.*, 217 N.C. 1, 6 S.E.2d 822 (1939).

toward the lower riparian owner, the court will consider the correlative duty of the owner of the dam not to cause injury to an upper riparian owner.⁴⁴ Unprecedented storms or rainfall need not be anticipated. However, the owner of a dam will be held liable if he is negligent in the operation of the dam, and such negligence is a contributing factor in the cause of the damage by an Act of God.⁴⁵

4. Pollution.

The "natural flow" doctrine provided that a riparian owner was entitled to receive the natural flow of a stream undiminished in quantity and unimpaired in *quality*.⁴⁶ The doctrine included qualifications which permitted the upper riparian owner to supply his domestic needs.⁴⁷ Such permissible use implied that the lower riparian owner could not expect the water to be absolutely pure. The adoption of the reasonable use rule permitting a riparian owner to use water for "purposes of profit"⁴⁸ in addition to his domestic needs necessarily implied that these additional uses also might impair the original purity of the water.⁴⁹ Thus the law must strike a balance between the reasonable use by an upper riparian owner and the right of the lower riparian owner to receive the water without excessive diminution in quality. Delicate questions may arise on this issue, but so far the cases involve the more serious problems of pollution growing out of the discharge of sewage and industrial wastes into watercourses. Typically, these suits are brought by a riparian owner against a non-riparian polluter but occasionally the polluter is also a riparian owner.⁵⁰ Plaintiffs in these suits may assert nuisance⁵¹ or

⁴⁴ *Id.*

⁴⁵ *Id.* Commissioners v. Jennings, 181 N.C. 393, 107 S.E. 312 (1921) (unprecedented storm).

⁴⁶ Durham v. Cotton Mills, 141 N.C. 615, 54 S.E. 453 (1906).

⁴⁷ Pugh v. Wheeler, 19 N.C. 50 (1836).

⁴⁸ *Id.* at 54.

⁴⁹ "The word 'pollution' has different meanings for different people. To some it is raw sewage; to others it is toxic and smelly chemicals, and to the angler it is temperatures too high for trout or bass. To approach the pollution problem realistically, one must include as pollution all the activities of man that in any way degrade the quality of water." SENATE SELECT COMMITTEE ON NATIONAL WATER RESOURCES, NATIONAL WATER RESOURCES AND PROBLEMS 25 (Comm. Print No. 3, 1960).

⁵⁰ Pernell v. City of Henderson, 220 N.C. 79, 16 S.E.2d 449 (1941) (cause of action for nuisance); Cook v. Town of Mebane, 191 N.C. 1, 131 S.E. 407 (1926) (award of 6000 dollars damages to land and mill site approved).

⁵¹ The court approved the following charge to the jury: "Now, gentlemen, a nuisance is anything which works hurt, inconvenience or damage, or which essentially interferes with the enjoyment of life or property, and the pollution of water by the discharge into a stream of matters which are offensive in

damage in the nature of trespass against his property rights. But according to the court:

Whether we say this is an action for damages resulting from a continuing trespass or for the maintenance of a nuisance or accord it some other name is immaterial. Irrespective of the nomenclature used, it is in essence an action in tort for the wrongful damage to and taking of the land of plaintiffs, without compensation for private gain.⁵²

With reference to standing, at common law when only the rights of the general public were injured by pollution, prosecution had to be in the name of the state.⁵³ In 1826 in a suit instituted by the city of Raleigh an injunction was granted to prohibit the erection of a dam and the operation of a mill on the ground that to permit its operation would adversely affect the health of the inhabitants.⁵⁴ In 1903 the General Assembly enacted a statute which authorized "any person" to seek an injunction against the pollution of a public water supply.⁵⁵ In 1917, this statute was invoked successfully against the town of Louisburg.⁵⁶ These cases, however, are not typical inasmuch as the courts have been reluctant to enjoin polluters either under the common law or under the 1903 statute.

In 1935 the town of Smithfield⁵⁷ sued the city of Raleigh to

odor or which renders(sic) it unfit for such use as it had heretofore been reasonably put to, is a nuisance." *Cook v. Town of Mebane*, 191 N.C. 1, 6, 131 S.E. 407, 410 (1926).

⁵² *Phillips v. Hassett Mining Co.*, 244 N.C. 17, 21, 92 S.E.2d 429, 432 (1956). (Plaintiff's lands were damaged by overflow of dirt, silt and refuse dumped into the stream. N.C. GEN. STAT. § 74-31 (1965) which authorizes such discharge in connection with mining of kaolin and mica apparently insulates the defendant from injunction suits).

⁵³ *Banks v. Town of Burnsville*, 228 N.C. 553, 46 S.E.2d 559 (1948). (Court stated that a non-riparian owner would not be entitled to an injunction unless the defendant was maintaining a nuisance and plaintiff alleged and proved that he suffered special damages as a result).

⁵⁴ *Attorney-Gen. ex rel. Citizens of Raleigh v. Hunter*, 16 N.C. 12 (1826).

⁵⁵ Now N.C. GEN. STAT. § 130-165 (1964). The 1967 wording is as follows:

No person or municipality shall flow or discharge sewage or industrial waste above the intake into any source from which a public drinking water supply is taken, unless said sewage or industrial waste shall have passed through some system of purification approved by the State Board of Health and Board of Water and Air Resources; and the continued flow and discharge of such sewage may be enjoined.

Ch. 892, § 3(b) [1967] N.C. Sess. L.

⁵⁶ *North Carolina State Bd. of Health v. Commissioners*, 173 N.C. 250, 91 S.E. 1019 (1917).

⁵⁷ *Town of Smithfield v. City of Raleigh*, 207 N.C. 597, 178 S.E. 114 (1935).

enjoin it from emptying the raw sewage of 42,000 people in the Neuse River, the source of the water supply of the plaintiff. The city of Raleigh had violated the 1903 statute, and it had ignored an order of compliance issued by the state Board of Health prior to the institution of the suit. Due to the financial distress of the Capitol City, the court did not issue an injunction. The court recognized that the 1903 statute did not require proof that an actual injury had occurred before an injunction could be ordered, but it also observed that it was not mandatory that an injunction should be granted. It concluded:

Notwithstanding, common sense is older than the common law, statutory law, or equity, and this saving grace of human experience must be reckoned with in determining the application of technical rules of behavior.⁵⁸

The city of Raleigh was admonished to comply with the law, and the town of Smithfield was informed that it was not estopped to try again. In 1948 a new suit was brought and the superior court ruled that the city of Raleigh must install sewage treatment facilities by January 1, 1956.⁵⁹ On November 10, 1956, the city of Raleigh ceased discharging untreated sewage into the Neuse River.

Though the disposal of sewage is in the exercise of a governmental function, nevertheless, a municipality that pollutes one's property is liable for damages. In effect, such injury is a taking or appropriation for which compensation must be paid.⁶⁰ The fact that a municipality complies with the requirements of the state Board of Health does not insulate it from liability for damages caused by pollution.⁶¹ Many successful suits for damages have been prosecuted against municipalities by riparian owners.⁶² In one case the court was not deterred even though the record indicated that thirty

⁵⁸ *Id.* at 600, 178 S.E. at 116.

⁵⁹ P. GREEN, D. HAYMAN, & E. MACHEN, *STREAM POLLUTION IN NORTH CAROLINA* 13-15 (1951).

⁶⁰ *Donnell v. City of Greensboro*, 164 N.C. 330, 80 S.E. 377 (1913).

⁶¹ *Id.* Apparently compliance will preclude injunctive relief.

⁶² *Spaugh v. City of Winston-Salem*, 249 N. C. 194, 105 S.E.2d 610 (1958) (1500 dollars awarded for temporary damage to home tract due to noxious odors and 1200 dollars awarded for temporary damage to sand producing lands); *Wagner v. Town of Conover*, 200 N.C. 82, 156 S.E. 167 (1930) (1750 dollars awarded for permanent damages to land); *Cook v. Town of Mebane*, 191 N.C. 1, 131 S.E. 407 (1926) (6000 dollars awarded for injury to property); *Donnell v. City of Greensboro*, 164 N.C. 330, 80 S.E. 377 (1913) (1000 dollars permanent damages awarded for injury to property).

or forty suits of like kind were pending against the city.⁶³ A non-riparian owner is entitled to recover damages when his property is sufficiently affected by noxious gases and odors.⁶⁴

In suits against industrial polluters, like in those against municipalities, courts have rarely granted injunctions. In at least two instances,⁶⁵ however, riparian owners were granted restraining orders pending outcome of trial at the common law, and in one case,⁶⁶ under the 1903 statute, the court enjoined a textile plant from discharging sewage in the Eno River, the source of water supply for the city of Durham.

A riparian owner may join a municipality and a manufacturing corporation (or an individual) in the same suit on the theory that the stream was polluted by their several, joint, and concurrent acts.⁶⁷ But a corporation using the city sewage system is not a proper co-defendant because the inhabitants of a city are not individually liable for the operation of the municipal sewage system.⁶⁸ Permanent damages may be awarded for pollution against municipalities and other corporations having statutory powers of eminent domain. In a suit for permanent damages, the proceeding is grounded upon a partial taking of another's property, and the outcome, if successful, in effect gives the defendant an easement to continue the activity.⁶⁹ Thus even though a corporate defendant may not have powers of condemnation, the parties may consent to the awarding of permanent damages with the same result as if it had such powers.⁷⁰

Other actions arising out of pollution of watercourses include one in which the defendant was polluting a stream under authority of a North Carolina statute⁷¹ which authorizes miners of kaolin and

⁶³ *Donnell v. City of Greensboro*, 164 N.C. 330, 80 S.E. 377 (1913).

⁶⁴ *Rhodes v. City of Durham*, 165 N.C. 679, 81 S.E. 938 (1914) (plaintiff's property located approximately fifty yards from the polluted stream).

⁶⁵ *Finger v. Rex Spinning Co.*, 190 N.C. 74, 128 S.E. 467 (1925); *Rhyne v. Flint Mfg. Co.*, 182 N.C. 489, 109 S.E. 376 (1921).

⁶⁶ *Durham v. Cotton Mills*, 141 N.C. 615, 54 S.E. 453 (1906); same case in 144 N.C. 705, 57 S.E. 465 (1907).

⁶⁷ *Stowe v. City of Gastonia*, 231 N.C. 157, 56 S.E.2d 413 (1949).

⁶⁸ *Hampton v. Town of Spindale*, 210 N.C. 546, 187 S.E. 775 (1936).

⁶⁹ *Brown v. Virginia-Carolina Chem. Co.*, 162 N.C. 84, 77 S.E. 1102 (1913). For measure of damages *see* *Lightner v. City of Raleigh*, 206 N.C. 496, 174 S.E. 272 (1934).

⁷⁰ *Clinard v. Town of Kenersville*, 215 N.C. 745, 3 S.E.2d 267 (1939); *Langley v. Staley Hosiery Mills Co.*, 194 N.C. 644, 140 S.E. 440 (1927).

⁷¹ N.C. GEN. STAT. § 74-31 (1965) now reads: "In getting out and washing the products of kaolin and mica mines, the persons engaged in such business shall have the right to allow the waste, water, and sediment to run off into the natural courses and streams."

mica to discharge waste, water, and sediment into natural water-courses. The court has held⁷² that this statute does not preclude one who is injured thereby from suing for damages. But since this statute appears to run afoul the North Carolina Water and Air Resources Act of 1967,⁷³ the General Assembly should cleanse the "books" by expressly repealing it. Another action involving pollution arose in 1943, when a riparian owner alleged that the defendant polluted the waters by discharging industrial waste and thereby prevented the migration of fish to his nets. Though a riparian owner on a navigable stream has no property right in fish in a wild state, the court held⁷⁴ that the plaintiff stated a cause of action for damages to his property including his fishing business.

5. Acquisition of Water Rights by Prescription.

An easement may be acquired by prescription. For example, it is unlawful for a lower riparian owner by erecting a dam to cause water to pond on the land of an upper riparian owner. But if the ponding continues for the requisite period of time (usually twenty years) under circumstances the court deems adverse, the lower riparian owner will acquire an easement by prescription to continue backing up water on the land of the upper riparian owner. The burden is on the riparian owner who asserts prescriptive rights to prove that the ponding was visible, notorious, continuous, adverse, and under claim of right⁷⁵ because the law presumes that the flooding was permissible.⁷⁶ The court has held that a lower riparian

⁷² *Phillips v. Hassett Mining Co.*, 244 N.C. 17, 92 S.E.2d 429 (1956); *McKinney v. Deneen*, 231 N.C. 540, 58 S.E.2d 107 (1950).

⁷³ Ch. 892 [1967] N.C. Sess. L.

⁷⁴ In the words of the court:

The law will not permit a substantial injury to the person or property by a nuisance, though public and indictable, to go without individual redress, whether the right of action be referred to the existence of a special damage, or to an invasion of a more particular and more important personal right. The personal right involved here is the security of an established business. The fact that plaintiff had such established business antedating the nuisance, and that the injury had been done to this, takes him out of the rule and makes his damage special and particular.

Hampton v. North Carolina Pulp Co., 223 N.C. 535, 547, 27 S.E.2d 538, 545 (1943).

⁷⁵ In the early cases the court used a curious mixture of the language of "lost grant" and adverse possession when discussing easements and water rights by prescription. Gradually, the "lost grant" ingredient has faded out and presumably may now itself be lost. See Note, 45 N.C.L. Rev. 284 (1966).

⁷⁶ *Darr v. Carolina Aluminum Co.*, 215 N.C. 768, 3 S.E.2d 434 (1939); *Perry v. White*, 185 N.C. 79, 116 S.E. 84 (1923).

owner who has acquired an easement by prescription to pond the land of an upper riparian owner cannot build a bigger or better dam and thereby pond a larger area inasmuch as the easement is limited to the area involved in the prescriptive period.⁷⁷

Taking water from a watercourse in excess of one's rights, or by one with no right to divert at all, does not in its strictest sense involve the law of easements, but it is so nearly in the nature of an easement that the same general principles apply.⁷⁸ The court implied in a recent case⁷⁹ that a non-riparian owner might acquire a right to take water for irrigation purposes by prescription. The case was not decided on this basis because the complaint failed to allege that the plaintiff had acquired prescriptive rights, notwithstanding the fact that the diversion had been going on for thirty or thirty-five years.

At common law a riparian owner is permitted to cause some pollution of a watercourse incident to his right of user. May he acquire by prescription a right to pollute to an extent greater than is permissible by common right? If the act of pollution amounts to a public nuisance, it is clear that he cannot⁸⁰ because there is no such thing as acquiring a right to maintain a public nuisance by prescription. Since the scope of public nuisance is being enlarged by legislation, a polluter has at most a theoretical⁸¹ possibility in a narrow area to establish a right by prescription to continue his practices.

Only very infrequently does one acquire an easement or a water right in the nature of an easement by prescription in North Carolina. The law presumes the user to be permissive; and thus it is difficult for the claimant to make out his case for the right to pond, flood, or divert. As indicated, the right to pollute is severely limited by the inapplicability of the law of prescription to a public nuisance. In the future, prescriptive rights are likely to be asserted in cases involving diversion for irrigation and diversion by municipalities

⁷⁷ *Powell v. Lash*, 64 N.C. 456 (1870).

⁷⁸ *Geer v. Durham Water Co.*, 127 N.C. 349, 37 S.E. 474 (1900).

⁷⁹ *Young v. City of Asheville*, 241 N.C. 618, 86 S.E.2d 408 (1955).

⁸⁰ *Town of Shelby v. Cleveland Mill & Power Co.*, 155 N.C. 196, 71 S.E. 218 (1911).

⁸¹ *North Carolina Bd. of Health v. Comm'rs*, 173 N.C. 250, 254, 91 S.E. 1019, 1022 (1917): "There are authorities to the effect that as against a private individual lower down on the stream, the right to pollute to a greater extent than is permissible at common law may be acquired by prescription by an upper riparian owner."

for their inhabitants, in those instances where the right has not otherwise been established.

6. Navigable Watercourses.

A person who owns land adjacent to a watercourse—whether navigable or non-navigable—is a riparian owner. However, a riparian owner along a navigable watercourse does not *per se* own any part of the bed. The General Assembly has declared⁸² that title to “submerged lands” belongs to the state, and this term is defined to mean land which lies beneath any navigable waters within the boundaries of the state or the Atlantic Ocean to a distance of three geographical miles seaward from the coastline of the state. The following statement was made recently by the court:

It is settled law in this State that the State of North Carolina owns the land within its territorial limits covered by navigable waters, except as far as private rights in it have been acquired by express grant by the State, and subject to the rights of control of the Federal Government over commerce with foreign nations and among the several states, including its power over navigation.⁸³

The policy of the state has been against making land under navigable waters subject to entry and grant and apparently only a limited number of such grants have been made.⁸⁴

In determining the navigability of a particular watercourse, the “ebbing and flowing” of the tides was once applied as the criterion, but this test was ultimately rejected by the court as unrealistic.⁸⁵ Under this test the Albemarle and Pamlico Sounds which are “in-

⁸² N.C. GEN. STAT. §§ 146-64(6)(7) (1964). The state also has title to “swamp lands” which are defined in subsection (8) as follows: “‘Swamp lands’ means lands too wet for cultivation except by drainage, and includes (a) All State lands which have been or are known as ‘swamp’ or ‘marsh’ lands, ‘pocosin bay’, ‘briary bay’ or savanna’, and which are a part of one swamp exceeding 2,000 acres in area, or which are a part of one swamp 2,000 acres or less in area which has been surveyed by the State; and (b) All State lands which are covered by the waters of any State owned lake or pond.”

⁸³ *Miller v. Coppage*, 261 N.C. 430, 435, 135 S.E.2d 1, 5 (1964).

⁸⁴ *Swan Island Club v. Yarbrough*, 209 F.2d 698 (4th Cir. 1954); *Resort Dev. Co. v. Parmele*, 235 N.C. 689, 71 S.E.2d 474 (1952) (court casts doubt on validity of grants made between 1837-1841, a period when there was no legislation forbidding grants for land under navigable waters); *Shepard's Point Land Co. v. Atlantic Hotel*, 132 N. C. 517, 44 S.E. 39 (1903) (history of legislation concerning grants of land under navigable waters included).

⁸⁵ As early as 1828 the court discussed the inappropriateness of the “ebbing and flowing” test. *Wilson v. Forbes*, 13 N.C. 30 (1828). But this test was

land seas" would be subject to private property. The test substituted by the court—that navigable waters means all waters which are navigable in fact⁸⁶—now has legislative sanction.⁸⁷ Watercourses are navigable in fact, according to the court, if in their ordinary state they have capacity and suitability for the usual purpose of navigation by vessels or boats such as are employed in the ordinary course of water commerce, trade, and travel.⁸⁸ The capacity of the water for such use rather than actual use is sufficient.⁸⁹

Although the riparian owner does not own the bed of a navigable watercourse, he does own the banks,⁹⁰ and he is entitled to certain rights by virtue of this fact. Those navigating the water-

applied in 1846. *Hatfield v. Grimstead*, 29 N.C. 139 (1846). By 1901 the court fully accepted the "navigable in fact" test. *State v. Baum*, 128 N.C. 600, 38 S.E. 900 (1901). The court assumed from the outset that the "ebbing and flowing" test was the common law of England.

The following statement appears in 56 AM. JUR. *Waters* § 178 (1947): This view as to the common-law rule [ebbing and flowing] has for its foundation an erroneous declaration by Chancellor Kent in an early decision which he later carried into his Commentaries . . . [An] examination of the English decisions and the works of the textwriters of the time leads to the conclusion that the tidal test of navigability has never been the rule of the English courts, but that rather the question has been determined with respect to actual usability for navigation.

⁸⁶ *Parmele v. Eaton*, 240 N.C. 539, 83 S.E.2d 93 (1954); *State v. Baum*, 128 N.C. 600, 38 S.E. 900 (1901).

⁸⁷ N.C. GEN. STAT. § 146-64(4) (1964).

⁸⁸ *Parmele v. Eaton*, 240 N.C. 539, 83 S.E.2d 93 (1954). Navigable waters of the United States include those waters which could be made navigable in fact by the construction of reasonable improvements and have a connection with other waters to form a channel or highway for commerce among the states or with foreign nations. *United States v. Appalachian Electric Power Co.*, 311 U.S. 377 (1940); *rehearing denied*, 312 U.S. 712 (1941); Note, 19 N.C.L. REV. 379 (1941).

⁸⁹ *Taylor v. West Virginia Pulp & Paper Co.*, 262 N.C. 452, 137 S.E.2d 833 (1964); *Elizabeth City Water & Power Co. v. City of Elizabeth City*, 188 N.C. 278, 124 S.E. 611 (1924); *State v. Twiford*, 136 N.C. 603, 48 S.E. 586 (1904). The Roanoke River was held to be navigable even though intercepted by falls because it is navigable for considerable distances above and below the falls. *Broadnax v. Baker*, 94 N.C. 675 (1886); *Swan Island Club v. White*, 114 F. Supp. 95 (E.D.N.C. 1953) (Currituck Sound). The court has expanded its concept of navigability since its decision in *State v. Glen*, 52 N.C. 321 (1859) and it is doubtful if the classification of watercourses made in that decision is now accurate. The so-called "floatable" streams are streams which are non-navigable; but nevertheless, may meet the test of "floatability" which entitles one to an easement to float logs. The stream must be one in which a businessman "may calculate that, with tolerable regularity as to seasons, the water will rise to and remain at such height as will enable them to make profitable use as a highway for transporting logs to mills or markets lower down." *Commissioners v. Catawba Lumber Co.*, 116 N.C. 731, 734, 21 S.E. 941, 942 (1895).

⁹⁰ *O'Neal v. Rollinson*, 212 N.C. 83, 192 S.E. 688 (1937).

course have no right to land upon or use the bank without his consent.⁹¹ In the absence of restrictive legislation he has a right of access over his water front to navigable water. Subject to such regulations as may be imposed by the legislature, he has a right to construct wharves, piers, and landings on the water frontage.⁹² He may seek judicial relief by way of injunction against the acts of persons interfering with his right of access.⁹³ A riparian owner on a navigable watercourse is entitled to relicted land,⁹⁴ to land built up by any process of nature,⁹⁵ and to land built up by the erection of any pier, jetty, or breakwater.⁹⁶ He is also authorized by legislation to apply for an easement to fill in the area immediately in front of his land.⁹⁷ The right of a riparian owner to fish, hunt, and take wild game in or on navigable waters is in common with the general public.⁹⁸ The public right to navigation, however, is paramount.⁹⁹

7. Conclusion on Riparian Rights in Watercourses.

Except for a few statutory modifications,¹⁰⁰ the doctrine of riparian rights in North Carolina is a product of judicial decision.

⁹¹ Gaither v. Albemarle Hosp., 235 N.C. 431, 70 S.E.2d 680 (1952).

⁹² Jones v. Turlington, 243 N.C. 681, 92 S.E.2d 75 (1956).

⁹³ Gaither v. Albemarle Hosp., 235 N.C. 431, 70 S.E.2d 680 (1952); O'Neal v. Rollinson, 212 N.C. 83, 192 S.E. 688 (1937).

⁹⁴ Hodges v. Williams, 95 N.C. 331 (1886) (Relicted land results from a recession of water. A riparian owner is not entitled to rellicted land if the bed of the navigable stream has been granted to another.).

⁹⁵ N.C. GEN. STAT. § 146-6(a) (1964); Jones v. Turlington, 243 N.C. 681, 92 S.E.2d 75 (1956).

⁹⁶ N.C. GEN. STAT. § 146-6(a) (1964). This statute further provides: the tract, title to which is thus vested in a riparian owner, shall include only the front of his formerly riparian tract and shall be confined within the extension of his property lines, which extensions shall be perpendicular to the channel, or main watercourses.

⁹⁷ N.C. GEN. STAT. § 146-6(c) (1964).

⁹⁸ Hampton v. North Carolina Pulp Co., 223 N.C. 535, 27 S.E.2d 538 (1943); State v. Twiford, 136 N.C. 603, 48 S.E. 586 (1904); State v. Glen, 52 N.C. 321 (1859); Swan Island Club v. White, 114 F. Supp. 95 (E.D.N.C. 1953), *aff'd*, Swan Island Club v. Yarbrough, 209 F.2d 698 (4th Cir. 1954).

⁹⁹ Jackson v. Keeling, 46 N.C. 299 (1854).

¹⁰⁰ N.C. GEN. STAT. § 73-5 (1965) provides a riparian owner on one side of a stream power to condemn land on the opposite side for purposes of erecting a mill. N.C. GEN. STAT. § 139-18(b)(1) (1964), a provision in the Small Watershed Act, prohibits the diversion of water from one watershed to another. N.C. GEN. STAT. § 153-293 (1964) specifically prohibits counties and cities under the Water and Sewage Facilities Act from diverting water from any major river basin, the main stem of which is not located entirely within North Carolina downstream from the point of such diversion, except where such diversion is now permitted by law. Nantahala Power & Light Co. v. Moss, 220 N.C. 200, 17 S.E.2d 10 (1941). These and related anti-diversion laws are discussed in Heath, *Water Use Law in Action*, 28 POPULAR GOV'T 13 (March-April 1962).

There are hazards in undertaking to define this doctrine. On one occasion the court was prompted to say:

In each case the particular becomes so blended with the general, the specific so definitely a part of the universal, that he must indeed be a deft and expert craftsman who undertakes to excise that which is general law.¹⁰¹

Then, too, there are many unanswered questions. A few examples may be helpful. What is the physical extent of riparian land?¹⁰² Does land (or an interest less than a fee) acquired by a riparian owner adjacent to his existing riparian land also become riparian land? If several riparian owners need water for irrigation and the supply is insufficient to meet the needs of all, who prevails?

The riparian doctrine, fluid in nature, may have been adequate to meet changing needs in the past when water was plentiful relative to need, and its use was mainly for non-consumptive purposes; but as the demands on water resources grow, the necessity for legislation to define more explicitly the relations between riparian owners will become more evident.¹⁰³

Diffused Surface Waters

Diffused surface waters may result from rainfall, melting snows, seepage, springs, or overflow waters which become separated permanently from their stream source.¹⁰⁴ Such waters differ from natural streams in that they are vagrant, are spread over the surface of the ground without observable channels or banks, and have no predictable flow. The common law rule concerning the use of diffused surface waters, including intra-tract reservoirs and ponds, is that they belong to the person who captures or retains them upon his own land.¹⁰⁵ Such person has a proprietary right and may divert water for any private or commercial use.¹⁰⁶ Diffused surface

¹⁰¹ *Nantahala Power & Light Co. v. Moss*, 220 N.C. 200, 209, 17 S.E.2d 10, 16 (1941).

¹⁰² Note, 34 N.C.L. Rev. 247 (1956).

¹⁰³ Power, paper, and chemical interests in the recent North Carolina hearings implied "considerable satisfaction in the security of the riparian system in North Carolina, especially (from their point of view) if not supplemented by regulatory controls." WISE MANAGEMENT—FINAL REPORT 16.

¹⁰⁴ 6A AMERICAN LAW OF PROPERTY § 28.61 (A.J. Casner ed. 1954).

¹⁰⁵ Dolson, *Diffused Surface Water and Riparian Rights: Legal Doctrines in Conflict*, 1966 WIS. L. REV. 58, 59.

¹⁰⁶ 6A AMERICAN LAW OF PROPERTY, *supra*, note 104, at § 28.62.

water in an artificial pond is generally considered the private property of the owner of the land who impounds it.¹⁰⁷ Existing legislation concerning use of diffused surface water in the eastern states, almost without exception, codifies the common law of absolute ownership.¹⁰⁸ In the absence of judicial or statutory modification, it may be presumed that the common law of absolute ownership currently prevails in North Carolina.¹⁰⁹ It is apparent that the capture and impoundment of diffused surface waters in reservoirs will become more important as a source of water supply.¹¹⁰ Ultimately disputes will develop between owners of land in North Carolina over the use of diffused surface water, and alteration of the common law on this point may become necessary, just as it became necessary in the law of watercourses and underground water.

Traditionally, the owners of land have been more concerned with their right to rid themselves of diffused surface waters than with their rights to capture and use them. There is a substantial body of law in North Carolina involving the rights and duties of the upper and lower landowners toward each other in respect to the disposition of diffused surface waters.¹¹¹ This aspect of the law of diffused surface waters will not be included in this discussion of water use.

¹⁰⁷ Dolson, *Diffused Surface Water and Riparian Rights: Legal Doctrines in Conflict*, 1966 WIS. L. REV. 58.

¹⁰⁸ Heath, *Water Management Legislation in the Eastern States*, 2 LAND AND WATER L. REV. 99 (1967).

¹⁰⁹ N.C. GEN. STAT. § 4-1 (1953). Statute reads as follows:

All such parts of the common law as were heretofore in force and use within this State, or so much of the common law as is not destructive of, or repugnant to, or inconsistent with, the freedom and independence of this State and the form of government therein established, and which has not been otherwise provided for in whole or in part, not abrogated, repealed, or become obsolete, are hereby declared to be in full force within this State.

¹¹⁰ N.C. GEN. STAT. § 139 (1964) as amended by ch. 987 [1967] N.C. Sess. L. (concerning Soil and Water Conservation Districts, Watershed Improvement Districts and including utilization as well as conservation and disposal.) Heath, *Small Watershed Programs*, 26 POPULAR GOV'T 18 (March-April 1960); Heath, *Small Watershed Enabling Laws*, 26 POPULAR GOV'T 2 (Nov. 1959); Heath, *Water Resources*, 25 POPULAR GOV'T 22, 24 (June 1959).

¹¹¹ 2 WISE MANAGEMENT app. D at D7. Illustrative cases are: Sherrill v. Highway Comm., 264 N.C. 643, 142 S.E.2d 653 (1965); Midgett v. Highway Comm. 260 N.C. 241, 132 S.E.2d 599 (1960) (Included in the opinion is a discussion of the common-enemy doctrine and the civil-law doctrine. North Carolina adheres to the latter); Phillips v. Chesson, 231 N.C. 566, 58 S.E.2d 343 (1950); Davis v. Atlantic Coast Line R.R. Co., 227 N.C. 561, 43 S.E.2d 82 (1947) (Court deals with the obligation of the owner of higher land to the owner of lower land).

Underground Water

About one sixth of the annual precipitation in the piedmont and coastal plain areas sinks into the pores and other openings in the soil and underlying rocks and becomes subterranean or underground water (sometimes referred to as "ground water" as distinguished from surface water).¹¹² In 1956 it was estimated that about three-fourths of the population of North Carolina used "ground water" for domestic water supply.¹¹³ This included almost all people in rural areas and 175 of the state's 335 municipalities having public water supplies. In the same year it was estimated that more than 100 million gallons of underground water was used daily for industrial purposes. A decade later one industry in eastern North Carolina, in order to mine phosphate by the dry-pit method, pumped "ground" water from the Castle Hayne limestone at the rate of sixty-five million gallons a day.¹¹⁴ In 1966 the Department of Water Resources made the following observation:

Ground water continues to be the principal source of domestic water supplies in the State. In addition, development of ground water supplies for industrial, commercial and agricultural supplies is increasing rapidly in much of the State and is expected to continue. Although conflicts among water users resulting from ground water development are not yet statewide, some critical problems have already arisen. . . .¹¹⁵

Problems of "ground" water are of recent origin and the number of decided cases is small compared to those involving watercourses; nevertheless, the court has developed rather precise rules governing the use of "ground water."

The court has classified¹¹⁶ subterranean or underground or "ground water" as follows:

- (1) subterranean water flowing in well defined channels;
- (2) subterranean or underground *percolating* waters.

Although subterranean streams or bodies of water flowing in a fixed or definite channel are rare, and probably do not exist in North

¹¹² DEWIEST 35.

¹¹³ REPORT OF THE N.C. BD. OF WATER COMM'RS 45 (1956).

¹¹⁴ DEWIEST 116.

¹¹⁵ 2 WISE MANAGEMENT app. G at G23.

¹¹⁶ Jones v. Home Bldg. & Loan Ass'n, 252 N.C. 626, 114 S.E.2d 638 (1960).

Carolina,¹¹⁷ the court has expressed itself on the applicable law as follows:¹¹⁸

- (a) The rules of law applicable to surface streams, so far as practicable, apply to underground streams;
- (b) To qualify as a subterranean stream or body of water its existence and location must be ascertainable without excavation;
- (c) Unless it appears that underground water in a given case flows in a defined and known channel, it will be presumed to be *percolating* water;
- (d) Thus the burden of establishing the existence of an underground stream rests upon the party who alleges such fact.

Cases involving underground percolating or "ground" water deal with problems of diversion, obstruction, and pollution. They will be discussed in this order.

1. Diversion.

The court first dealt with the diversion of "ground" water in a case decided in 1924.¹¹⁹ The plaintiff purchased about six hundred acres of land in two tracts. The water was bad. He sank wells and procured deep artesian water at a cost of several thousand dollars. The defendant, city of Kinston, then purchased a half acre of land adjoining the tracts of the plaintiff, and began sinking deep wells with the expressed purpose of transporting the water to the city in a ten inch main. Subsequently, two of the plaintiff's wells ceased to flow, and the flow of a third well was decreased from approximately 100 gallons to eight gallons a minute. The trial court awarded the plaintiff 8,000 dollars damages for injury to his wells. On appeal the court rejected the "English rule" which gives a land-

¹¹⁷ DEWIEST 141-42. This report further stated:

Under-ground streams do occur in limestone terranes as a result of solution of the limestone by ground water percolating along fissures or cracks. Examples of underground streams are found in the Luray Caverns in Virginia, the Mammoth Cave in Kentucky, and the Carlsbad Caverns in New Mexico.

See *Masten v. Texas Co.*, 194 N.C. 540, 140 S.E. 89 (1927) (the court referred to a "vein" of water).

¹¹⁸ *Jones v. Home Bldg. & Loan Ass'n*, 252 N.C. 626, 114 S.E.2d 638 (1960).

¹¹⁹ *Rouse v. City of Kinston*, 188 N.C. 1, 123 S.E. 482 (1924). Note, 3 N.C.L. REV. 31 (1925).

owner the absolute property in percolating water, together with the right to prevent its passage to adjoining land. The court said:

We think the American rule, adopted in most of the states where this question has arisen, the 'reasonable use' of percolating water, the correct rule. The beauty of the common law is that it is elastic and at all times fitted to meet modern life and changing conditions when consonant with right and justice. We think there is no error in the charge of the court below, as follows:

"This rule [American Rule] does not prevent the private use by any landowner of percolating waters subjacent to his soil, in manufacturing, agriculture, irrigation, or otherwise; nor does it prevent any reasonable development of his land by mining, or the like, although by such use the underground percolating waters of his neighbors may be thus interfered with or diverted; but it does prevent the withdrawal of underground waters for distribution or sale, for uses not connected with any beneficial ownership or enjoyment of the land from which they are taken, if it thereby follows that the owner of adjacent land is interfered with in his right to the reasonable use of subsurface water upon his own land, or if his wells, springs or streams are thereby materially diminished in flow or his land rendered less valuable for agriculture, pasturage, or for legitimate uses. . . . I therefore charge you that, in the absence of contract or legislative enactment, whatever is reasonable for the owner to do with his subsurface water, he may do. He may make the most of it that he reasonably can. It is not unreasonable for him to dig wells and take therefrom all the waters that he needs in order to get the fullest enjoyment and usefulness from his land, for the purposes of abode, productiveness of the soil, or manufacture, or whatever else the land is capable of. He may consume it at will; but, to fit it up with wells and pumps of such pervasive and potential reach that from their base he can tap the waters stored in the lands of others, and thus lead them to his own land, and by merchandising it, prevent its return, to the injury of adjoining landowners, is an unreasonable use of the soil, and in such event the injured neighbor may bring his action for damages."¹²⁰

The court decided that it was unreasonable for the city of Kinston to divert water from its half-acre of land for uses unconnected with its legitimate activity on that land. Judgment for the plaintiff was affirmed.

In 1962 the court had occasion to apply the reasonable use rule to mining or quarrying for the first time. In this case¹²¹ the de-

¹²⁰ 188 N.C. at 23-24, 123 S.E. at 493.

¹²¹ *Bayer v. Nello L. Teer Co.*, 256 N.C. 509, 124 S.E.2d 552 (1962).

fendant, who operated a rock quarry on the land adjacent to the plaintiff's lot, pumped percolating waters from the quarry in order to reach the rock. Since the locale was a coastal area, the diminution of the fresh water supply caused salt water to seep into the plaintiff's well, rendering it unfit for use. The defendant did not use the water but it conducted its operation according to the best practices of open pit mining. The court held that the defendant's motion for judgment of involuntary nonsuit was improperly overruled. The defendant, according to the court, was using its land in a legitimate and natural manner, and in this factual situation the defendant was not chargeable with waste for not using the water it removed.

These two cases make it clear that the reasonable use rule for underground percolating or "ground" water is not the same as the reasonable use rule applied to watercourses. A landowner whose property overlies a productive water-bearing formation can consume as much of the water as he needs for beneficial purposes on his own land without regard to the effect that it will have on the ground water supplies of his neighbors. The only limitations appear to be that he must not waste the water (except in open pit mining)¹²² and that it cannot be diverted for sale or use on other land.¹²³ A riparian owner may use the water in a watercourse to which he is riparian only with due regard to the similar rights of other riparian owners. The difference in the law of reasonable use in these two classifications of water will come into vivid focus when and if a user, thwarted in drawing directly from a surface stream all the water he desires, constructs a well located so as to capture ground water that would otherwise feed into the stream, or even reverse the flow to obtain water from the stream such as to substantially reduce its flow or to dry it up.¹²⁴

2. Obstruction.

According to the English or common law rule, the obstruction of percolating water by the owner of land, incident to the use of the land, was permissible in the absence of negligence or malice, even

¹²² DEWIEST 143; "Water that is pumped to dewater a mine is not *used* in the strict sense of the word. However, it if is discharged into a tidal estuary it is wasted, or for all practical purposes 'consumed.'"

¹²³ *Id.* at 124.

¹²⁴ WISE MANAGEMENT—FINAL REPORT 19.

though the adjoining owner was damaged thereby.¹²⁵ In 1960¹²⁶ the court had before it a case in which the defendant, in constructing a building on its lot, erected a foundation wall adjacent to plaintiff's land. This wall obstructed the drainage of underground water, causing it to back up on plaintiff's lot and into his cellar. The court held that the complaint stated a cause of action for obstruction of percolating water and that the evidence was sufficient for an issue to be submitted to the jury on *negligent* obstruction of percolating waters. However, in the course of the opinion the court stated that the reasonable use rule applies to the obstruction of underground water as well as to its diversion.

3. Pollution.

Pollution of individual wells and local pollution of aquifers from septic tanks and other waste disposal, gasoline storage, insecticide storage, and similar sources may occur. The court adheres to the rule that a person who, by permitting the pollution of his own soil or the water thereunder, contaminates his neighbor's well or water supply is liable for damages. In one case¹²⁷ the plaintiff was awarded damages because his well was contaminated by gasoline due to a leak in a gasoline storage tank installed on land adjacent to the plaintiff's land and within one hundred and thirty feet of his well.

PART II—PUBLIC INTEREST IN WATER USE

Part I has dealt with private rights in water use including the rules fashioned by the courts, with selected examples to demonstrate how these rules are applied in different factual situations. The judicial approach, in keeping with the common law tradition, has been flexible, especially in recognition of new demands on water use growing out of industrial growth and development. Even so, there are many unanswered questions in the law of private rights, particularly in the law governing the rights of riparian owners. Of greater importance, however, is the fact that the common law does not ade-

¹²⁵ Annot., 29 A.L.R.2d 1354 (1953).

¹²⁶ *Jones v. Home Bldg. & Loan Ass'n*, 252 N.C. 626, 114 S.E.2d 638 (1963). The court also held that the complaint stated a cause of action for obstruction of a subterranean stream, but since the plaintiffs did not have any proof that the subterranean waters were other than percolating waters, a nonsuit on this cause of action was affirmed.

¹²⁷ *Masten v. The Texas Co.*, 194 N.C. 540, 140 S.E. 89 (1927). See also *Clark v. Lawrence*, 59 N.C. 83 (1860).

quately protect the larger public interest in water resources. This is primarily a task for the General Assembly.

Legislation prior to 1967

In 1893 the General Assembly enacted laws which invoked the police power of the state for the purpose of protecting the public water supply from pollution. These laws,¹²⁸ including subsequent amendments, vest certain powers, duties, and responsibilities in the State Board of Health. Until 1951, there was no other significant legislation on stream pollution.¹²⁹

In 1951, after unsuccessful efforts in 1947 and 1949, advocates of stronger controls on stream pollution made substantial progress. In that year the General Assembly created a State Stream Sanitation Committee within the State Board of Health, and gave it extensive powers to deal with the pollution problem.¹³⁰ The Committee was charged both with the promulgation of detailed rules and regulations and with the enforcement of such rules. In both its legislative and administrative roles the Committee was subjected to procedural safeguards. In 1959 the Committee was transferred, for administrative purposes, to the new Department of Water Resources without change in its powers, duties, responsibilities, or functions.¹³¹

The Department of Water Resources, governed by the Board of Water Resources, was created in 1959 and was charged with initiating, planning and executing long-range water resource development programs, including protection activities.¹³² The authority of the Department to control the quantity of water use was confined to three limited areas:

(1) Local Public Water Emergencies.¹³³

Authority of the Board in this area, in summary follows:

Upon request by city or county authorities and after an in-

¹²⁸ Now N.C. GEN. STAT. §§ 130-157 to -166 (1964). Amended in 1899, 1903, rewritten in 1911 and further amended in 1957 and 1959. The 1903 version was held to be constitutional. *Durham v. Cotton Mills*, 141 N.C. 615, 54 S.E. 453 (1906).

¹²⁹ P. GREEN, D. HAYMAN, & E. MACHEN, *STREAM POLLUTION IN NORTH CAROLINA* 5 (1951).

¹³⁰ An excellent analysis of this statute appears in 29 N.C.L. REV. 365-69 (1951).

¹³¹ For a brief history see; Long, *Walter Pollution Control in North Carolina*, 28 *POPULAR GOV'T* 11 (March-April 1962).

¹³² For a more detailed outline of its responsibilities see 1 *WISE MANAGEMENT* 19-20.

¹³³ N.C. GEN. STAT. §§ 143-354(b) -(e) (1964).

vestigation by the Board, the Governor may declare a water emergency in a locality where the needs of human consumption, sanitation and public safety demand such a declaration. When an emergency has been declared the Board may authorize diversions for these limited purposes of human consumption, sanitation and public safety and may regulate the use of such diverted water in the emergency area. A mechanism is provided for compensating those damaged by diversions.¹³⁴

- (2) Legislation authorizing watershed improvement districts. The Board has certain supervisory powers in this area including the duty to examine and pass upon proposed work plans in accordance with criteria set forth by the General Assembly.¹³⁵
- (3) An Irrigation Permit Law. This statute, passed in 1951, was repealed in 1961¹³⁶ due to "ambiguities and difficulties of administration."¹³⁷

Thus except for the very limited situations outlined in (1) and (2), the Board had no firm basis to regulate water usage.

Quality and Quantity Controls in 1966

On the quality side, the State Stream Sanitation Committee had classified¹³⁸ the surface waters of the state with regard to the highest acceptable usage as follows: (1) drinking; (2) bathing; (3) fishing; (4) agriculture, industrial cooling and processing supply; (5) navigation and disposal of sewage and other wastes. Tidal salt water was classified as suitable for (1) shellfishing for market purposes; (2) bathing; (3) fishing; and (4) navigation. Further, in 1963 the Committee completed pollution abatement plans for surface water. As to enforcement:

. . . no legal actions have yet been initiated by the Committee, though some polluters have been called before the Committee to explain unsatisfactory pollution abatement progress and one show cause hearing has been held which, after the receiving of testimony, the Committee recessed to permit the polluter to come forward with satisfactory plans and cost estimates for pollution abatement. Thus, the hallmark of North Carolina's Stream Sani-

¹³⁴ 1 WISE MANAGEMENT 97-98. This emergency power has not been exercised, WISE MANAGEMENT—FINAL REPORT 17.

¹³⁵ N.C. GEN. STAT. § 139-35(c) (1964).

¹³⁶ Repealed by ch. 315 (1961) N.C. Sess. L.

¹³⁷ 1 WISE MANAGEMENT 96. Discussed in Heath & Wicker, *Water Resources*, 28 POPULAR GOV'T 21 (Sept.-Oct. 1961).

¹³⁸ DEWIEST 139.

tation Program continues to be encouragement of voluntary abatement action. Under this approach commendable progress has been made in abatement of pollution.¹³⁹

In 1966 the Department of Water Resources made the following observation about quality control of surface streams:

[C]enters of growing population and industry located near headwaters of streams are beginning to exert pressures on regional water resources which cannot be met solely by the water quality regulations now practiced in North Carolina. Danger signals are already visible in some locations. Their message is that even a very high degree of treatment of sewage and industrial waste may not long provide a reasonable margin for further economic growth in these areas.¹⁴⁰

In respect to ground water, investigations and data collection were in progress with a view toward completing a detailed plan for groundwater development and management in the coastal plain region by 1975 and for the mountain and piedmont regions prior to 1980.¹⁴¹ Under the law as it existed in 1966 authority was provided for protection of ground-water reservoirs as they might be affected by the disposal of wastes. But apparently the law did not provide for protection of ground water from contamination such as salt-water intrusion brought about by over-pumping.¹⁴² In 1966 the Department of Water Resources did not think that the State Stream Sanitation laws provided all the powers needed to assure water quality suitable to meet all reasonable uses.¹⁴³

In 1966, quantity controls of both ground and surface water were prime targets of consideration by the Department of Water Resources.¹⁴⁴ Except for the two limited areas, previously mentioned, there was no legislation authorizing such controls. There was no authority for anyone—public or private—to deal with the over use of ground water. A Board of Consultants,¹⁴⁵ employed by the state, addressing itself to a particular problem in Beaufort County on ground water, concluded that continued pumping of

¹³⁹ NORTH CAROLINA DEP'T OF WATER RESOURCES, NORTH CAROLINA WATER RESOURCES PLANNING 69 (1964); Greensboro Daily News, Sept. 16, 1967, § B, at 1, col. 8.

¹⁴⁰ 1 WISE MANAGEMENT 104.

¹⁴¹ 2 WISE MANAGEMENT app. G at G23.

¹⁴² DEWIEST 133-34.

¹⁴³ 1 WISE MANAGEMENT 38.

¹⁴⁴ *Id.* at 104.

¹⁴⁵ DEWIEST 159.

sixty-five million gallons per day would surely result in "decreasing the supply available for other present and future users and impair the quality under a sizeable area." Undoubtedly, the possibility¹⁴⁶ of over use and misuse of ground water, especially in the coastal plain region, with attendant lowering of water levels and salt contamination, gave strong impetus to the enactment of significant water use legislation by the 1967 General Assembly.

1967 Legislation

The 1967 General Assembly enacted nine laws and passed one resolution dealing with water resources.¹⁴⁷ This legislation, covering almost one hundred printed pages, repeats certain existing legislation, rewrites some, amends some, and adds much that is new. A Department of Water and Air Resources is created to replace the Department of Water Resources and the State Stream Sanitation Committee.¹⁴⁸ A new Board of Water and Air Resources, con-

¹⁴⁶ Texas Gulf Sulphur was pumping sixty-five million gallons a day and other mining companies were interested in the feasibility of recovering phosphates in Beaufort and Pamlico counties. *Id.* at 6.

¹⁴⁷ (1) The North Carolina Water and Air Resource Act, ch. 892 [1967] N.C. Sess. L., to appear in N.C. GEN. STAT. § 143 art. 21; (2) Water Use Act of 1967, ch. 933 (1967) N.C. Sess. L., to appear in N.C. GEN. STAT. § 143 art. 21; (3) The North Carolina Well Construction Act, ch. 1157 [1967] N.C. Sess. L., to appear in N.C. GEN. STAT. § 87; (4) An Act to Amend the Well Driller Registration Act as set forth in N.C. GEN. STAT. § 143 art. 38, ch. 1069 [1967] N.C. Sess. L.; (5) The Dam Safety Law of 1967, ch. 1068 [1967] N.C. Sess. L., to appear in N.C. GEN. STAT. § 143 art. 21; (6) An Act to Amend the Small Watershed Laws with Regard to Borrowing by Counties for Watershed Improvement Programs; Borrowing by Counties and Municipalities for Water Supply Aspects of Such Programs; Eminent Domain Powers; Extraterritorial Powers; Land Acquisition Authority; Recreational Expenditures, and Fish and Wildlife Habitat, ch. 987 [1967] N.C. Sess. L. to appear in N.C. GEN. STAT. §§ 139 & 153; (7) An Act to Authorize the North Carolina Department of Water and Air Resources to Assist, Coordinate, and Otherwise Participate with Local Levels of Government in a Program of Flood Plain Management, ch. 1070 [1967] N.C. Sess. L., to appear in N.C. GEN. STAT. §§ 139 & 143; (8) An Act to Provide a Means to Regulate Dredging and Filling of Marshes and Tidelands, ch. 907 [1967] N.C. Sess. L., to appear in N.C. GEN. STAT. § 146; (9) An Act to Amend the N.C. GEN. STAT. Relating to the Powers and Duties of the Board of Water and Air Resources to authorize the Board "to provide to Federal agencies the required assurances, subject to availability of appropriations by the General Assembly or applicable funds or assurances from local governments, or non-Federal cooperation for water supply storage and other Congressionally-authorized purposes in Federal Projects," ch. 1071 [1967] N.C. Sess. L., to appear in N.C. GEN. STAT. §§ 143-354, -355; (10) A Joint Resolution Directing the Legislative Research Commission to Study Certain Water Resource Laws, and to Report Its Findings and Recommendations to the 1969 General Assembly, Res. 38 [1967] N.C. Sess. L.

¹⁴⁸ N.C. GEN. STAT. § 143-212 (1967).

sisting of thirteen members, is charged with the responsibility of administering the laws relating to water use and water resource management.¹⁴⁹

The Board, with the approval of the Governor, is required to appoint a full-time Director, who shall be a well qualified engineer, experienced and knowledgeable in the fields of water and air resource management.

The most significant feature of the 1967 legislation vests authority in the Board to invoke quantity controls on water use in specified situations. The Water Use Act of 1967 and the North Carolina Well Construction Act are directed particularly to the quantitative use of water.

Before summarizing the Water Use Act of 1967 and the Well Construction Act, mention must be made of the fact that the new Board, like its predecessor, is charged with certain responsibilities in connection with local public water emergencies¹⁵⁰ and legislation dealing with small watersheds.¹⁵¹

Quantity Controls

The Water Use Act of 1967¹⁵² means that henceforth a raindrop might be subject to quantity controls established by the Board of Water and Air Resources. To become a "public interest" raindrop is by no means automatic. There are many hurdles to cross before this can be accomplished, and under present legislation most raindrops in the state will continue as the "common law" variety. Whether a raindrop becomes a "public interest" one or remains under the "common law" will not depend on whether it is on the surface or underground. The Water Use Act applies to water in "any stream, river, brook, swamp, lake, sound, tidal estuary, bay, creek, reservoir, waterway, or any other body or accumulation of water, surface or underground, public or private, natural or artificial," which is contained within, flows through, or borders upon the state or any portion thereof, including those portions of the Atlantic Ocean over which the state has jurisdiction.

The first step required to establish that a raindrop is in the pub-

¹⁴⁹ N.C. GEN. STAT. § 143-214 (1967).

¹⁵⁰ N.C. GEN. STAT. §§ 143-354(b)-(c) (1964).

¹⁵¹ N.C. GEN. STAT. § 139-35(c) (1964).

¹⁵² Ch. 933 [1967] N.C. Sess. L. The Act will be included in N.C. GEN. STAT. § 143 art. 21. Section numbers will be assigned by the Attorney-General.

lic interest is the Board determination that it is in a "capacity use area." The Board is authorized to declare a "capacity use area" provided it follows specific and detailed procedures outlined in the Act. If the Board believes that a capacity use situation exists or is emerging, it will direct the Department to investigate.¹⁶³ The Department will file a written report with recommendations to the Board. If the Board then contemplates issuing an order declaring a capacity use area, it must give notice and hold one or more hearings before issuing a final order.

After a "capacity use area" has been designated, the Board may proceed to formulate regulations concerning water use, such as timing of withdrawals, protection against or abatement of salt encroachment, and it may prescribe pumping levels or maximum pumping rates or both. Again there must be notice and one or more hearings on the regulations before the Board takes final action.

Water users in a "capacity use area" are required by law to secure a permit from the Board in all instances where use is in excess of 100,000 gallons per day. If the use is consumptive, the Board may grant or deny a permit for use in excess of 100,000 gallons a day. If the use is non-consumptive (as defined in the

¹⁶³ The Water Use Act of 1967, ch. 933 [1967] N.C. Sess. L. defines "a capacity use area" as follows:

Within the meaning of this Act 'a capacity use area' is one where the Board finds that the aggregate uses of ground water or surface water, or both, or in affecting said area (1) have developed or threatened to develop to a degree which requires coordination and regulation, or (2) exceed or threaten to exceed, or otherwise threaten or impair, the renewal or replenishment of such waters or any part of them.

The following areas have been identified by the Board of Water Resources as possible "capacity use areas" but the Board made it clear that there was no implication that each of them would be so declared:

1. Pigeon River watershed (surface waters).
2. French Broad River watershed (surface waters).
3. Tuckasegee River watershed (surface waters).
4. South Fork, Catawba River watershed (surface waters).
5. Catawba basin stream watersheds in Mecklenberg County (surface waters).
6. Rocky River watershed (tributary to the Pee Dee) (surface waters).
7. Haw River watershed (surface waters).
8. Northeast Cape Fear River watershed (surface waters).
9. Beaufort County area (ground water).
10. Area near Franklin, Virginia, in Gates and Hertford Counties (ground water).
11. New Bern-Kinston area (ground water).
12. New Hanover County area (ground water).

Act),¹⁵⁴ the Board is required to issue a permit without a hearing and without attaching conditions which it might include in a consumptive use permit.

Water users in a "capacity use area" who do not use in excess of 100,000 gallons a day are not required to secure a permit, but, nevertheless, are required to comply with regulations issued by the Board concerning water use for the area except for such quantities as are considered domestic water use.

As previously indicated, the Board is required to hold one or more public hearings before final action can be taken on each of the following: (1) declaration of a "capacity use area"; (2) issuance of regulations; and (3) passing on a permit application when the use is consumptive. These hearings must be before the Board, or before one or more of its members, or before one or more of its qualified employees. A complete record is required and the procedures "insofar as practicable" shall follow those applicable in civil actions in the superior court.¹⁵⁵

Any person "against whom any final order or decision has been made"¹⁵⁶ shall have a right of appeal to the Superior Court of Wake County or of the county where the order or decision is effective.

¹⁵⁴ "Non-consumptive use" means (a) the use of water withdrawn from a stream in such a manner that it is returned to the stream without substantial diminution in quantity at or near the point from which it was taken; or of (sic) the user owns both sides of the stream at the point of withdrawal, the water is returned to the stream upstream of the next property below the point of diversion on either side of the stream; (b) the use of water withdrawn from a ground water system or aquifer in such a manner that it is returned to the ground water system or aquifer from which it was withdrawn without substantial diminution in quantity or substantial impairment in quality at or near the point from which it was withdrawn; (c) Provided, however, that (in determining whether a use of ground water is nonconsumptive) the Board may take into consideration whether any material injury or detriment to other water users of the area by reason of reduction of water pressure in aquifer or system has not been adequately compensated by the permit applicant who caused or substantially contributed to such injury or detriment. ch. 933, § 11(7) [1967] N.C. Sess. L.

¹⁵⁵ N.C. GEN. STAT. § 143-214 (1967) prescribes that Board members (particularly those appointed to succeed those initially appointed) have certain qualifications but training in law is omitted. However, Res. 83 [1967] N.C. Sess. L. directs the Legislative Research Commission to study, report and recommend to the 1969 General Assembly "the need for legislation providing for a special master or hearing officer procedure for proceedings preliminary to orders and determinations of the State Board of Water and Air Resources."

¹⁵⁶ No appeal is permitted on action taken by the Board pursuant to N.C. GEN. STAT. § 143-215(j) (1967). This section deals with air pollution.

"The matter on appeal shall be heard and determined de novo on the transcript certified to the court and any evidence or additional evidence as shall be competent under rules of evidence than applicable to trials in the Superior Court without a jury upon any question of fact . . ." The decision of the judge may be appealed to the North Carolina Supreme Court.

In the event the Water Use Act of 1967 is attacked on constitutional grounds, the issue will be whether the legislation represents a valid exercise of the police power or whether it is a taking of private property without compensation, in violation of the Federal and State Constitutions. Then, too, there is a question as to whether those provisions in the Act requiring the Board to consider prior use and prior investments in the issuance of permits are grants of exclusive or separate emolument or privilege within the meaning of article 1, section 7 of the North Carolina Constitution.¹⁵⁷

Any person who violates any provision of the Act is guilty of a misdemeanor and shall be liable for penalties specified in the Act. In addition, upon violation of any of the provisions of the Act, or the regulations of the Board pursuant to the Act, the Director of

¹⁵⁷ The court discussed the "police power" of the state extensively in upholding the constitutionality of the 1903 Act protecting public water supplies from pollution. *Durham v. Cotton Mills*, 141 N.C. 615, 54 S.E. 453 (1906). A provision in the 1915 Legislation exempting corporations chartered prior to March 4, 1915 from the proscription against emptying into streams deleterious or poisonous substances inimical to fish was held to be a classification having no relation to the evil sought to be remedied. *State v. Glidden*, 228 N.C. 664, 46 S.E.2d 860 (1948). The court said:

The broad nature of the exception made by the provision and its lack of useful relation to any purpose which could be attributed to the measure, especially the purported purpose of conserving fish life, is apparent. The exception embraces and immunizes all corporations chartered before the 4th day of March, 1915, without reference to whether the members of the class thus privileged were at that time using the streams to carry off waste products of a deleterious nature, or had any investment which might be impaired by a statutory prohibition, or whether the corporation is domestic or foreign, seated or ambulatory. Corporations chartered prior to March 4, 1915, alone are permitted to pollute the waters, where already engaged, or elsewhere, or if not, to peruse the map and sit down at any time, at any place, and begin. They thus have a privilege denied to corporations chartered on or after that date and to "any person or persons" whatsoever, without qualification.

The requirement that the Board consider prior use and prior investment may pass muster on constitutional grounds not only as coming within the criteria suggested in the foregoing statement by the court, but also on the ground that the Board has only to consider these factors along with others in arriving at its conclusions. See generally Sax, *Takings and the Police Power*, 74 YALE L.J. 36 (1964).

the Department may, either before or after the institution of proceedings for the collection of the penalty, institute a civil action in the superior court for injunctive relief to restrain the violation.

The North Carolina Well Construction Act¹⁵⁸ is designed to protect the public health and the ground-water resources of the State. The Board is required to adopt, and may from time to time amend, rules and regulation not inconsistent with this Act governing the location, construction, repair and abandonment of wells, and the installation and repair of pumps and pumping equipment. Prior permission shall be obtained from the Board for the construction of

- (1) any water well or well system with a designed capacity of one hundred thousand gallons per day or greater; and
- (2) any other well in a geographical area where the Board finds, after public hearings, such permission to be reasonably necessary to protect the ground-water resources and the public welfare, safety and health, taking into consideration other applicable State laws.

An application cannot be rejected under (2) unless the Board finds that its construction would violate the Act or a rule or regulation which had been adopted by the Board. Wells and pump installations in existence and in use on the effective date of this Act are exempt from the permit requirement. However, abandoned wells, within such time as specified by the Board, may be made subject to the provisions of the Act and to such regulations as the Board may adopt with respect to abandoned wells.

Provisions for hearings, appeals, penalties, and injunctive relief, in general, parallel those appearing in the Water Use Act of 1967.

Quality Controls

The North Carolina Water and Air Resources Act¹⁵⁹ substantially reenacts existing legislation¹⁶⁰ on water pollution and provides new legislation on air pollution. The authority formerly vested in the Stream Sanitation Committee on water pollution was transferred to the new Department of Water and Air Resources. Some changes were made in the law. For example, the Board, unlike the State

¹⁵⁸ Ch. 1157 [1967] N.C. Sess. L. to be included in N.C. GEN. STAT. § 143 art. 21.

¹⁵⁹ N.C. GEN. STAT. §§ 143-211 to -215 (1964).

¹⁶⁰ N.C. GEN. STAT. § 143-215(d)(4) (1964). This provision was deleted in the 1967 legislation.

Stream Sanitation Committee, is not legislatively required to consider in classifying streams:

The extent to which such water is already receiving sewage, industrial waste, or other waste as a result of present or past usage of the water, and the relative economic values involved in improving or attempting to improve the condition of such water.¹⁶¹

The new Act, like its predecessor, calls for administrative self-restraint. The powers of the Act are to be exercised only when the objectives of the Act cannot be achieved by voluntary action within a reasonable time. On the other hand, the most significant difference in the new Act and its predecessor is stronger enforcement powers, thus indicating that voluntary action has not proved to be sufficient in itself and that in some situations in the future it will be essential for the Board to invoke its enforcement powers.

Officials of municipalities or other political subdivisions are no longer insulated from the penalties provided in the Act. They are now exempt only where a vote of the people is required to effectuate the purpose of the Act *and* the vote on the referendum is against the means or machinery for carrying the same into effect. This provision appears to be designed to require officials to exercise such discretion as they may have to prevent or end pollution.

A new provision gives the Board power to declare an emergency situation and authority to order a polluter to cease or reduce his pollution.

Penalties for violation have been increased, power to seek an injunction has been vested specifically in the Director and Assistant Director of the Board, investigatory powers have been strengthened, and jury trials on appeals from the Board have been eliminated. In general, the enforcement provisions in the Water and Air Resources Act are the same as those in the Water Use Act.

The Water and Air Resources Act does not diminish or disturb the existing authority¹⁶² vested in the State Board of Health to deal with water pollution. The State Board of Health, in general, has responsibilities for the disposal of sewage and wastes from public schools and state and local institutions, raw milk dairies, farm slaughter houses, shellfish processing plants, and similar establishments. The Board of Water and Air Resources, like its predecessor,

¹⁶¹ N.C. GEN. STAT. §§ 130-157 to -166 (1964).

¹⁶² N.C. GEN. STAT. §§ 130-157 to -166 (1964).

cannot approve and issue a permit for the discharge of wastes into waters either used or classified for use as public water supply until the State Board of Health determines and advises that the proposed method of treatment is approved by that agency.

Conclusion

Cooperation between the federal¹⁶³ and state governments in the planning, development, and control of water resources is essential. In 1957 the relative roles of the states and the federal government in the development and control of water resources was summarized:

The federal government now dominates in the fields of navigation, flood control, hydroelectric power development, irrigation, and river basin planning. The states dominate in the fields of water rights, urban water supplies, drainage, and fish and wildlife management. The responsibilities are more shared in the fields of power regulation, recreational planning, pollution control, and small watershed development.¹⁶⁴

The General Assembly in 1967 declared "that the water and air resources of the State belong to the people."¹⁶⁵ Substantial legislation, including the Water Use Act,¹⁶⁶ the Well Construction Act,¹⁶⁷ and the Water and Air Resources Act,¹⁶⁸ means that the General Assembly intends North Carolina to be an active partner with the federal government in the preservation of its water and air resources.¹⁶⁹

It is difficult to establish a proper balance between private water

¹⁶³ The federal government has ample constitutional authority in the commerce clause, the federal proprietary interest, the general welfare and taxing power, the war power and indian and international treaties. King, *Federal-State Relations in the Control of Water Resources*, 37 U. OF DET. L.J. 1 (1959); Heath, *Some Legal Aspects of Federal and State Regulation of Water Pollution*, 30 POPULAR GOV'T 9 (June 1964).

¹⁶⁴ Englebert, *Federalism and Water Resource Development*, 22 LAW & CONTEMP. PROB. 323, 330 (1956).

¹⁶⁵ The North Carolina Water and Air Resources Act, ch. 892 [1967] N.C. Sess. L., N.C. GEN. STAT. § 143-211 (1967).

¹⁶⁶ Ch. 933 [1967] N.C. Sess. L.

¹⁶⁷ Ch. 1157 [1967] N.C. Sess. L.

¹⁶⁸ Ch. 892 [1967] N.C. Sess. L.

¹⁶⁹ For a brief discussion of several federal laws see 2 WISE MANAGEMENT app. G at G3-G18. Ch. 1071 [1967] N.C. Sess. L. amends N.C. GEN. STAT. § 143-354(a) (1964) to authorize the Board of Water and Air Resources "to provide to Federal agencies the required assurances, subject to availability of appropriations by the General Assembly of applicable funds or assurances from local governments, of non-Federal cooperation for water supply storage and other Congressionally-authorized purposes in Federal projects."

rights and a conflicting public interest in water resources. The 1967 legislation represents a significant effort to protect the public interest through the exercise of the police power of the state. The framework for an effective program has been achieved; however, due to the complicated and detailed procedure contained in the legislation, considerable leakage is likely to occur in this new system of water use controls. The 1967 General Assembly, no doubt, foresaw this possibility for it directed the Legislative Research Commission to study, report, and make recommendations to the 1969 General Assembly:

on the water resources legislation proposed and enacted by the 1967 General Assembly, the experience in applying such legislation, and the need for further legislation in the light of such experience.¹⁷⁰

¹⁷⁰ Res. 83 [1967] N.C. Sess. L.